Notice of Allowability	Application No.	Applicant(s)	
	09/761,721	MAEDA, MITSURU	
	Examiner	Art Unit	
	Ronald Baum	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *3/6/2006*.

2. ☒ The allowed claim(s) is/are *1,3-18 and 20-42*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *05182006* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian L. Klock, Reg. No. 36,570 on 5/15/2006.

1. Replace claims 1, 8, 18, 25, 35 and 37 with the following (shown ***marked up*** here, followed by *clean version*):

1. An information processing apparatus comprising:

first input means for inputting

encoded data of information data consisting of

plural frames;

second input means for inputting

security data for protecting

at least one section of the information data;

extraction means for extracting

a start code of a frame group consisting of

at least one frame, from the encoded data included in the section for

which security is set and

which is to be protected in accordance with the security data,

wherein the start code is a code

discriminable from the encoded data;

superimposing means for superimposing

the security data

related to the frame group to which the start code belongs,

on

said start code; and

output means for outputting

the encoded data processed by

scrambling means for scrambling

the encoded data other than

the start code in the section for which the security is set,

wherein the security data contains

key information to be used by

the scrambling means.

8. An information processing apparatus comprising:

input means for inputting

image encoded data comprising:

a start code of a frame group, comprising

at least one frame,

the start code of the frame group including

security data adaptively superimposed thereon; and

image encoded data other than

the start code that is

adaptively scrambled in accordance with the security data,

wherein the security data ~~comprises data~~ contains

key information used in

the scrambling for protecting

at least a part of the image encoded data;

code extraction means for extracting from

the image encoded data

a code which is located at a position where

the start code is present,

wherein the start code is a code

discriminable from the encoded data;

detection means for detecting

the security data from

the extracted code;

descrambling means for descrambling

the image encoded data other than

the start code

that is adaptively scrambled, in accordance with

a detection result of said detection means; and

decoding means for decoding

the image encoded data descrambled by said descrambling means.

18. An information processing method comprising the steps of:

inputting

encoded data of information data consisting of

plural frames;

inputting

security data for protecting

at least one section of the information data;

extracting a start code of a frame group consisting of

at least one frame from the encoded data included in the section for

which security is to be set and

which is to be protected in accordance with

the security data,

wherein the start code is a code

discriminable from the encoded data;

superimposing

the security data

related to the frame group to which the start code belongs,

on

said start code; and

outputting

the encoded data processed in

a step of scrambling

the encoded data other than

the start code in the section for which the security is set,

wherein the security data contains

key information to be used in

the scrambling step.

25. An information processing method comprising the steps of:

inputting

image encoded data comprising:

a start code of a frame group comprising

at least one frame,

the start code of the frame group including

security data adaptively superimposed thereon; and

image encoded data other than

the start code that is

adaptively scrambled in accordance with the security data,

wherein the security data ~~comprises data~~ contains

key information used in

the scrambling for protecting

at least a part of the image encoded data;

extracting

from the image encoded data

a code which is located at a position where

the start code is present,

wherein the start code is a code

discriminable from the encoded data;

detecting

the security data

from the extracted code;

descrambling

the image encoded data other than

the start code in accordance with

the detection result of said detecting step; and

decoding

the descrambled image encoded data.

35. An information processing method comprising the steps of:

inputting

image encoded data that forms

a hierarchical structure;

extracting

a start code indicating

a head of a predetermined layer from

the image encoded data,

wherein the start code is a code

discriminable from the image encoded data; and

superimposing

security data

for protecting at least a part of an image

onto the start code

extracted in said extracting step,

wherein the security data contains

key information to be used in

a scrambling step.

37. An information processing method comprising the steps of:

inputting

encoded data in which

security data for protecting

at least a part of an image

is superimposed on

a start code indicating

a head of a predetermined layer of

image encoded data that forms

a hierarchical structure,

wherein the start code is a code

discriminable from the encoded data and

wherein the security data contains

key information used in

a scrambling step;

extracting from

the encoded data

a code which is located at

a position where the start code is present;

detecting

the security data from

the extracted code; and

decoding

the encoded data in accordance with

a detection result in said detecting step.

2. Cancel claims 2, 19.

Clean claim version:

1. An information processing apparatus comprising:

first input means for inputting

encoded data of information data consisting of

plural frames;

second input means for inputting

security data for protecting

at least one section of the information data;

extraction means for extracting

a start code of a frame group consisting of

at least one frame, from the encoded data included in the section for

which security is set and

which is to be protected in accordance with the security data,

wherein the start code is a code

discriminable from the encoded data;

superimposing means for superimposing

the security data

related to the frame group to which the start code belongs,

on

said start code; and

output means for outputting

the encoded data processed by

scrambling means for scrambling

the encoded data other than

the start code in the section for which the security is set,

wherein the security data contains

key information to be used by

the scrambling means.

8. An information processing apparatus comprising:

input means for inputting

image encoded data comprising:

a start code of a frame group, comprising

at least one frame,

the start code of the frame group including

security data adaptively superimposed thereon; and

image encoded data other than

the start code that is

adaptively scrambled in accordance with the security data,

wherein the security data contains

key information used in

the scrambling for protecting

at least a part of the image encoded data;

code extraction means for extracting from

the image encoded data

a code which is located at a position where

the start code is present,

wherein the start code is a code

discriminable from the encoded data;

detection means for detecting

the security data from

the extracted code;

descrambling means for descrambling

the image encoded data other than

the start code

that is adaptively scrambled, in accordance with

a detection result of said detection means; and

decoding means for decoding

the image encoded data descrambled by said descrambling means.

18. An information processing method comprising the steps of:

inputting

encoded data of information data consisting of

plural frames;

inputting

security data for protecting

at least one section of the information data;

extracting a start code of a frame group consisting of

at least one frame from the encoded data included in the section for

which security is to be set and

which is to be protected in accordance with

the security data,

wherein the start code is a code

discriminable from the encoded data;

superimposing

the security data

related to the frame group to which the start code belongs,

on

said start code; and

outputting

the encoded data processed in

a step of scrambling

the encoded data other than

the start code in the section for which the security is set,

wherein the security data contains

key information to be used in

the scrambling step.

25. An information processing method comprising the steps of:

inputting

image encoded data comprising:

a start code of a frame group comprising

at least one frame,

the start code of the frame group including

security data adaptively superimposed thereon; and

image encoded data other than

the start code that is

adaptively scrambled in accordance with the security data,

wherein the security data contains

key information used in

the scrambling for protecting

at least a part of the image encoded data;

extracting

from the image encoded data

a code which is located at a position where

the start code is present,

wherein the start code is a code

discriminable from the encoded data;

detecting

the security data

from the extracted code;

descrambling

the image encoded data other than

the start code in accordance with

the detection result of said detecting step; and

decoding

the descrambled image encoded data.

35. An information processing method comprising the steps of:

inputting

image encoded data that forms

a hierarchical structure;

extracting

a start code indicating

a head of a predetermined layer from

the image encoded data,

wherein the start code is a code

discriminable from the image encoded data; and

superimposing

security data

for protecting at least a part of an image

onto the start code

extracted in said extracting step,

wherein the security data contains

key information to be used in

a scrambling step.

37. An information processing method comprising the steps of:

inputting

encoded data in which

security data for protecting

at least a part of an image

is superimposed on

a start code indicating

a head of a predetermined layer of

image encoded data that forms

a hierarchical structure,

wherein the start code is a code

discriminable from the encoded data and

wherein the security data contains

key information used in

a scrambling step;

extracting from

the encoded data

a code which is located at

a position where the start code is present;

detecting

the security data from

the extracted code; and

decoding

the encoded data in accordance with

a detection result in said detecting step.

Examiner's Statement of Reasons for Allowance

3. Claims 1-42 are allowed over prior art.

4. This action is in reply to applicant's correspondence of 06 March 2006.

5. The following is an examiner's statement of reasons for the indication of allowable claimed subject matter.

6. As per claims 1, 8, 18, 25, 35 and 37 generally, prior art of record, Kim et al, U.S. Patent 5,799,081 and Dawson, Ken, "MPEG-4: A Bird's Eye View", Carleton University, Hello World!, Issue 2, Vol. 1, "http://www.cosc.brocku.ca/~cspress/HelloWorld/1999/04-apr/mpeg4_a_birds_eye_view.html", fails to teach alone, or in combination, other than via

hindsight, at the time of the invention, the features as discussed and remarked upon in the response of 3/6/2006 to office action of 12/6/2005.

Specifically, (as per claim 18, for example, in the case of the encoding versus the claim 25 decoding side of the process) prior art dealing with frame (block)/hierarchical data structure scrambling/descrambling (i.e., cryptographic encryption/decryption), whereas the security information (i.e., cryptographic key) associated with the scrambling/descrambling is accessible, exists per se, (i.e., Li, Yongcheng, et al,'Security Enhanced MPEG Player',Dept. of Computer Science, Univ. of Illinois at Urbana-Champaign, 1996, entire doc., http://choices.cs.uiuc.edu/Papers/Vosaic/se_mpeg_player.pdf), such that said accessible security data generally is *not a function of the data positional aspects* (i.e., frame or frame grouping start code(s)) such that said *positional aspects* are discriminable and extracted prior to the combining with the security information. Nowhere in the prior art is found collectively the *italicized* claim elements (i.e., the aspect of *extracting a start code* from encoded data, said *start code discriminable from the encoded data* (i.e., such that encoded data can be cryptographically manipulated independent of positional information that is the superimposed security/start code aspect) and *superimposing upon said start code encoded data associated security data*, such that said security data is used for the scrambling (i.e., cryptographic encryption) of said encoded data); serving to patently distinguish the invention from said prior art;

"18. An information processing method comprising the steps of:

inputting

encoded data of *information data* consisting of

plural frames;

inputting

security data for protecting

at least one section of the *information data*;

extracting a start code of a frame group consisting of

at least *one frame from the encoded data* included in the section for

which *security is to be set* and

which is to be *protected in accordance with*

the security data,

wherein the *start code is a code*

discriminable from the encoded data;

superimposing

the *security data*

related to the frame group to which the start code belongs,

on

said *start code*; and

outputting

the *encoded data processed in*

a step of scrambling

the encoded data other than

the start code in the section for which the security is set,

wherein the *security data contains*

key information to be used in

the *scrambling step*.".

7. Dependent claims 3-7, 9-17, 20-24, 26-34 and 36 are allowable by virtue of their dependencies.

Conclusion

8. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861. The examiner can normally be reached Monday through Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (571) 272-3795. The Fax number for the organization where this application is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. For more information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Baum

Patent Examiner

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